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Date: Wednesday, 7/25/2007 6:16:55 AM
 User: Jean-Luc Menard

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services
 Job Number : 33651
 Estimate Number : 12611
 P.O. Number : *N/A*
 This Issue : 7/25/2007 S.O. No. : *N/A*
 Prsht Rev. : NC
 First Issue : *N/A* Type : MACHINED PARTS
 Previous Run : 33651
 Written By : *JLM 07-07-25*
 Checked & Approved By :
 Comment : Est Rev:A New Issue 06-12-19 JLM
 Est Rev:B Added Cad Plating 07-07-23 Verified By:EC

Drawing Name : SMALL ENGINE MOUNT
 Part Number : D2127251110
 Drawing Number : D212-725-1 PG35REVB
 Project Number : N/A
 Drawing Revision : B
 Material : *N/A*
 Due Date : 8/5/2007 Qty: 10 Um: Each

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M4140NB1500X15000 AISI 4140 Steel Bar



Comment: Qty.: 0.2972 f(s)/Unit Total: 2.9715 f(s)

AISI 4140 Steel Bar 1.500" X 1.500"

Batch: *M1104993**DIP 07/07/31*

⑩

2.0 BAND SAW BAND SAW



Comment: BAND SAW

Cut blank 3.400" long

DIP 07/07/31

⑩

3.0 HAAS1 HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1

Machine as per Folio FA657 and Dwg D212-725-1

DIP 07/07/31

⑩

4.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

DIP 07/08/01

⑩

5.0 QC8 SECOND CHECK



Comment: SECOND CHECK

JLM 07/08/01

⑩

6.0 OUTSIDE SERV.30 OUTSIDE SERVICES-MACH



Comment: Sub-Contracting OUTSIDE SERVICES-MACH

Issue P/O: *59210*

Cad Plate per QQ-P-416F Class I Type II

Conformity sheet required

4300C 207/08/07

Date: Wednesday, 7/25/2007 6:16:55 AM
User: Jean-Luc Menard

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SMALL ENGINE MOUNT

Job Number: 33651

Part Number: D2127251110

Job Number:



Seq. #: Machine Or Operation: Description :

7.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
Receive & Inspect For Transit Damage
Ensure certificate of conformity is attached

7/8/15 31 (102)

8.0 QC3 INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

Er 07.08.15 (x10)

9.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
Identify and Stock
Location: SK 131

7/8/16 (1.0x) 59

10.0 QC21 FINAL INSPECTION/W/O RELEASE



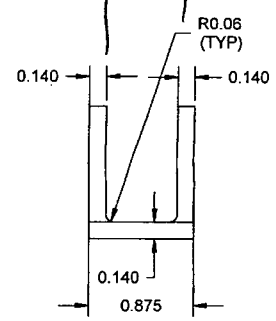
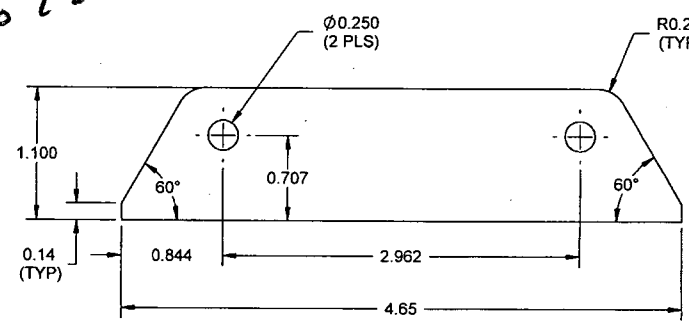
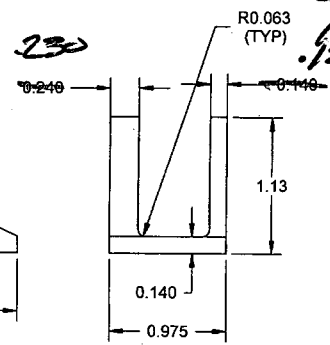
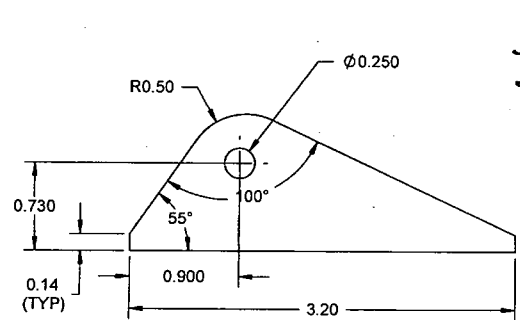
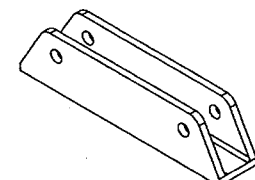
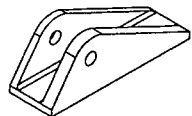
Comment: FINAL INSPECTION/W/O RELEASE

07.08.17

Job Completion



u 07.08.16



D212-725-1-109 SMALL ENGINE MOUNT
D212-725-1-110 OPPOSITE

D212-725-1-111 LARGE ENGINE MOUNT

D212-725-1-109/-110/-111 NOTES:

- 1) MATERIAL: AISI 4140/4130 STEEL BAR PER MIL-S-5626/-6758 OR AMS 6382/6349/6529 OR AMS 6348/6370/6528 (REF. DART SPEC. M4140N-B OR M4130N-B) HEAT TREAT TO MIN. ULTIMATE TENSILE STRENGTH = 125 ksi
- 2) FINISH: CADMIUM PLATE PER AMS-QQ-P-416B, CLASS I, TYPE II PRIME & PAINT PER AIRCRAFT MAINTENANCE MANUAL
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 6) IDENTIFY WITH DART P/N USING FINE POINT PERMANENT INK MARKER

NO. _____
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 ENGINEERING
 RETURN TO
 SHOP COPY

*Keep width of
 channel @ max
 .610" → .615"
 as per attached
 E-mail*

B	07.05.11	ADD CAD PLATE
A	06.12.08	NEW ISSUE
DESIGN JL	DRAWN BY RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED DS	APPROVED #	DRAWING NO. D212-725-1
DATE 07.05.11	TITLE 212S DETAIL PARTS	REV. B SHEET 35 OF 44 SCALE 1:1
<small>COPYRIGHT © 2006 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>		

Jean-Luc Menard

From: David Shepherd [dshepherd@dartaero.com]
Sent: Wednesday, July 18, 2007 12:17 PM
To: 'Jean-Luc Menard'
Cc: 'David Crowston'; 'Bill Beckett'; 'Mike Petsche'
Subject: FW: Eagle Single engine deck fittings

JL,

From our measurements here at Eagle, the rod ends are 0.592" wide.
From the drawing, the nominal width of the inside of the channel is 0.595", but can be as large as 0.615".

So if you work towards making the inside of the channel 0.615", we should be fine with CAD plate and primer.

We will revise this drawing at the next revision to dimension the inside of the channel rather than the outside.

Sorry for any inconvenience this has caused you.

David

-----Original Message-----

From: David Shepherd [mailto:dshepherd@dartaero.com]
Sent: Tuesday, July 17, 2007 12:15 PM
To: 'Jean-Luc Menard'; 'Bill Beckett'; 'Mike Petsche'
Cc: 'David Crowston'; 'Linda Lacelle'; 'Mike Mallon'; 'rfuentes@dartaero.com'; 'DART - Kim Johnston (E-mail)'
Subject: RE: Eagle Single engine deck fittings

Folks,

For the record, CAD plate was added to the drawing on May 11 per Dan Lemay's request. Parts of the D212-725-1 drawing were sent by email from Roberto on June 27th to Kim. The mistake that was made was that an ECN was not generated to release this drawing at Dart, which is probably my fault, since I am not in the habit of generating ECN's anymore. In the future, updates to D212-725-1 will be sent directly to Mike Petsche so that he can release them properly at Hawkesbury.

Further to my conversation with Mike Petsche this morning, only pages 4, 28, 33, and 35 were changed when D212-725-1 was upgraded to Rev. B (note that pages 38 to 44 are new pages on this drawing). This is fairly clear on the drawing itself.

I will have Roberto send you the complete D212-725-1 drawing later today so that Mike P. can generate an ECN.

Sorry for the confusion.

JL,

Your idea to work to the low end of the tolerances is a good one in order to maximize the width of the slots in the parts. Thanks. Dave C is going to give me a minimum dimension after finish to pass on to you, just to ensure that the parts will work when we get them here. FYI, this dimension will correspond to the rod ends that are used in the D205-708-011 Adjustable Engine Mount Kit, so you can probably come up with this dimensions yourself if need be.

David

-----Original Message-----

From: Jean-Luc Menard [mailto:jmenard@dartaero.com]
Sent: Tuesday, July 17, 2007 6:12 AM

To: 'Bill Beckett'; 'Mike Petsche'
Cc: 'David Crowston'; 'David Shepherd'; 'Linda Lacelle'; 'Mike Mallon'
Subject: RE: Eagle Single engine deck fittings

I have updated the workorders on the floor with the cad plating, I checked out the old Dwg vs the new Dwg, the dimensioning and tolerances have not changed to allow for cad plating, I'm assuming that this was taken in consideration when the dwg was revised. To be on the safe side for this batch, I told the machinists to keep on the low side of the tolerance to allow more room if the cad plating was not accounted for.
JLM

-----Original Message-----

From: Bill Beckett [mailto:bbeckett@dartaero.com]
Sent: Monday, July 16, 2007 4:38 PM
To: Mike Petsche
Cc: 'David Crowston'; 'David Shepherd'; 'Jean-Luc Menard'; 'Linda Lacelle'; 'Mike Mallon'
Subject: RE: Eagle Single engine deck fittings

Mike,
See below. This confirms my concern in my previous email to you on this topic. Please address ASAP.

Bill
PS: JL - please ensure you are working to the new drawing; if not please put a stop to ongoing Work Orders until this is sorted out.

-----Original Message-----

From: David Crowston [mailto:dcrowston@eaglecopters.com]
Sent: July 16, 2007 4:35 PM
To: Bill Beckett (E-mail)
Subject: Eagle Single engine deck fittings

Bill,
We are ready to order engine deck fittings for the next singles coming down the line. Roberto was supposed to send a corrected drawing out specifying Cadmium plate finish on these items. We received one recently which was not plated and was corroded on receipt. Note the dimension between the side flanges will need to be increased slightly to compensate for the thickness of the plating.
Reference: Drawing D212-725-1 Page 35 of 37. Part numbers D212-725-1-109, D212-725-1-110 & D212-725-1-111.
Thanks,
Dave C

No virus found in this incoming message.
Checked by AVG Free Edition.
Version: 7.5.476 / Virus Database: 269.10.8/904 - Release Date: 7/16/2007
5:42 PM

No virus found in this outgoing message.
Checked by AVG Free Edition.
Version: 7.5.476 / Virus Database: 269.10.8/904 - Release Date: 7/16/2007
5:42 PM

No virus found in this outgoing message.
Checked by AVG Free Edition.
Version: 7.5.476 / Virus Database: 269.10.8/906 - Release Date: 7/17/2007 6:30 PM

DART AEROSPACE LTD		Work Order: 33651
Description: Small Engine Mount		Part Number: D2127251110
Inspection Dwg:	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.20	± 0.030	3.202	✓			
1.13	± 0.030	1.137	✓			
0.975	± 0.010	0.9715	✓			
0.140	± 0.010	0.136	✓			
0.730	± 0.010	0.732	✓			
0.900	± 0.010	0.9055	✓			
Ø 0.250	$+0.005/-0.001$	0.2515	✓			
R0.500	± 0.030	0.500	✓			
55°	$\pm 1/2^\circ$	55°	✓			
100°	$\pm 1/2^\circ$	100°	✓			
0.250	± 0.010	0.229	✓			
0.130	± 0.010	0.131	✓			
0.610	0.60 / 0.615	0.612	✓			
R.063	± 0.010	0.063	✓			

Measured by: DJP	Audited by: [Signature]	Prototype Approval: N/A
Date: 07/07/31	Date: 07/08/01	Date: -

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

**MANCO
DOMPLEX**

9896 Crescent 3

Anjou (Québec) H1J 1B6

Tél.: 514-355-7867

Fax: 514-355-8750

**CERTIFICAT DE CONFORMITÉ
CERTIFICATE OF COMPLIANCE**

#17072

DART AERO SPACE.

Client / Customer

4300

Votre # de commande / Your purchase order #

D212725 1110 / D212725 1111
D212725 1109

de la pièce / part

105197

Notre # de bon de livraison / Our packing slip #

Inspecteur / Inspector	Renard.		Date, équipe / Date, shift	Jour 13/08/07
Placage / Plating	ASTM B766-86 TY-II-CL-12		Yellow CAD.	
Quantité totale / Total quantity	30 Pcs		Quantité inspectée / Inspected quantity	30 Pcs.
Adhésion / Adhesion	Bon			
Épaisseur / Thickness	L.C.D.	H.C.D.	Moy. / aver. 0.0005	
Coussures, taches / Leach, spots	NON		Rugosité / Roughness	NON
Quantité approuvée / Approved quantity	30 Pcs		Quantité rejetée / Rejected quantity	0

Commentaires / Comments

Nous certifions que les pièces énumérées ci-dessus ont été faites en conformité avec vos dessins et spécifications et rencontrent les exigences contenues dans ces dessins et/ou spécifications.

We hereby certify that the parts listed above have been made in accordance with your drawings and specifications and are correct to the requirements contained in those drawings and/or specifications.

Signé au nom de
Signed on behalf of

**MANCO
DOMPLEX**

See
ATTACHED
copy

MANCO
DOMPLEX

8896 Crescent 3
Anjou (Québec) H1J 1B6
Tél.: 514-355-7867
Fax: 514-355-8750

CERTIFICAT DE CONFORMITÉ
CERTIFICATE OF COMPLIANCE

#17072

DART AERO SPACE.

Client / Customer

4300

Votre # de commande / Your purchase order #

D 212 725 1110 / D 212 725 1111
D 212 725 1109
de la pièce / part

105197

Nbre # de bon de livraison / Our packing slip #

Inspecteur / Inspector	Renard		Date, équipe / Date, shift	Jour 13/08/07
Placage / Plating	ASTM B766-86 TY-II-CL-12		Yellow CAD.	
Quantité totale / Total quantity	30 Pcs		Quantité inspectée / Inspected quantity	30 Pcs.
Adhésion / Adhesion	Bon			
Épaisseur / Thickness	L.C.D.	H.C.D.	Moy. / aver. 0.0005	
Coussures, taches / Leach, spots	NON		Rugosité / Roughness	NON
Quantité approuvée / Approved quantity	30 Pcs		Quantité rejetée / Rejected quantity	0

Commentaires / Comments

ACCEPTABLE EQUIVALENT TO SAB-AMS-00-P-416 1407.06.16

Nous certifions que les pièces énumérées ci-dessus ont été faites en conformité avec vos dessins et spécifications et rencontrent les exigences contenues dans ces dessins et/ou spécifications.

We hereby certify that the parts listed above have been made in accordance with your drawings and specifications and are correct to the requirements contained in those drawings and/or specifications.

Signé au nom de
Signed on behalf of

MANCO
DOMPLEX

MANCO
DOMPLEX

8895 Crescent 3
Anjou (Québec) H1J 1B6
Tél.: 514-355-7867
Fax: 514-355-8750

CERTIFICAT DE CONFORMITÉ
CERTIFICATE OF COMPLIANCE

#17072

DART AERO SPACE

Client / Customer

4300

Votre # de commande / Your purchase order #

D2127251110/D2127251111
D2127251109

de la pièce / part

105197

Nôtre # de bon de livraison / Our packing slip #

Inspecteur / Inspector	Renaud	Date, équipe / Date, shift	Jour 13/08/07
Placage / Plating	AMS, QQ-P-416F, CL-2 Yellow CAD Ty-1		
Quantité totale / Total quantity	30 Pcs	Quantité inspectée / Inspected quantity	30 Pcs.
Adhésion / Adhesion	BON		
Épaisseur / Thickness	L.C.D.	H.C.D.	Moy. / aver. 0.0005
Coussures, taches / Leach, spots	NON	Rugosité / Roughness	NON
Quantité approuvée / Approved quantity	30 Pcs	Quantité rejetée / Rejected quantity	0

Commentaires / Comments

Nous certifions que les pièces énumérées ci-dessus ont été faites en conformité avec vos dessins et spécifications et rencontrent les exigences contenues dans ces dessins et/ou spécifications.

We hereby certify that the parts listed above have been made in accordance with your drawings and specifications and are correct to the requirements contained in those drawings and/or specifications.

Signé au nom de
Signed on behalf of

MANCO
DOMPLEX